

**Worksheet #15.2: Project Action Limits and Laboratory Reporting Limits – Target Analyte List (TAL)
SVOCs by 8270D (Soil)**

Analyte	CAS Number	Units	Lab Limits		PALs	Laboratory Accuracy and Precision Criteria			
			Lab LOQ	Lab DL	2017 EPA Resident Soil THQ=3.0 ^a	LCS Recovery Limits	LCS Precision	MS/MSD Recovery Limits	MS/MSD Precision
1,1'-Biphenyl	92-52-4	mg/kg	0.333	0.189	140	15 - 120	50	10 - 200	50
1,2,4,5-Tetrachlorobenzene	95-94-3	mg/kg	0.333	0.169	70	41 - 120	50	10 - 200	50
1,4-Dioxane	123-91-1	mg/kg	0.333	0.183	530	10 - 120	50	10 - 200	50
2,2'-Oxybis(1-chloropropane)	108-60-1	mg/kg	0.333	0.198	9400	32 - 120	50	20 - 120	50
2,3,4,6-Tetrachlorophenol	58-90-2	mg/kg	0.333	0.181	5700	44 - 120	50	10 - 200	50
2,4,5-Trichlorophenol	95-95-4	mg/kg	0.333	0.218	19000	39 - 120	50	27 - 120	50
2,4,6-Trichlorophenol	88-06-2	mg/kg	0.333	0.192	190	39 - 120	50	24 - 122	50
2,4-Dichlorophenol	120-83-2	mg/kg	0.333	0.175	570	32 - 120	50	17 - 120	50
2,4-Dimethylphenol	105-67-9	mg/kg	0.67	0.335	3800	32 - 120	50	17 - 120	50
2,4-Dinitrophenol	51-28-5	mg/kg	0.333	0.251	380	10 - 142	50	10 - 150	50
2,4-Dinitrotoluene	121-14-2	mg/kg	0.333	0.208	170	43 - 120	50	24 - 121	50
2,6-Dinitrotoluene	606-20-2	mg/kg	0.333	0.223	36	43 - 120	50	24 - 120	50
2-Chloronaphthalene	91-58-7	mg/kg	0.333	0.209	14000	34 - 120	50	24 - 120	50
2-Chlorophenol	95-57-8	mg/kg	0.333	0.191	1200	32 - 120	50	25 - 120	50
2-Methylnaphthalene*	91-57-6	mg/kg	0.067	0.026	720	28 - 120	50	13 - 120	50
2-Methylphenol	95-48-7	mg/kg	0.333	0.216	9500	36 - 120	50	23 - 120	50
3-Methylphenol	108-39-4	mg/kg	0.333	0.203	9500	37 - 120	50	19 - 120	50
2-Nitroaniline	88-74-4	mg/kg	0.333	0.207	1900	40 - 120	50	31 - 120	50
2-Nitrophenol	88-75-5	mg/kg	0.333	0.243	-	29 - 120	50	23 - 120	50
3,3'-Dichlorobenzidine	91-94-1	mg/kg	0.333	0.243	120	39 - 120	50	10 - 120	50
3-Nitroaniline	99-09-2	mg/kg	0.67	0.23	-	42 - 120	50	31 - 120	50
4,6-Dinitro-2-methylphenol	534-52-1	mg/kg	0.333	0.229	15	27 - 134	50	10 - 134	50
4-Bromophenyl-phenylether	101-55-3	mg/kg	0.333	0.205	-	40 - 120	50	31 - 120	50
4-Chloro-3-methylphenol	59-50-7	mg/kg	0.333	0.168	19000	38 - 120	50	21 - 120	50
4-Chloroaniline	106-47-8	mg/kg	0.333	0.227	270	35 - 120	50	26 - 120	50
4-Chlorophenyl-phenylether	7005-72-3	mg/kg	0.333	0.201	-	42 - 120	50	26 - 120	50
4 Methylphenol	106-44-5	mg/kg	0.333	0.203	19000	37 - 120	50	19 - 120	50
4-Nitroaniline	100-01-6	mg/kg	0.67	0.238	760	43 - 120	50	28 - 120	50
4-Nitrophenol	100-02-7	mg/kg	0.67	0.382	-	32 - 136	50	16 - 139	50
Acenaphthene*	83-32-9	mg/kg	0.067	0.032	11000	36 - 120	50	19 - 120	50
Acenaphthylene*	208-96-8	mg/kg	0.067	0.029	-	38 - 120	50	25 - 120	50
Acetophenone	98-86-2	mg/kg	0.333	0.186	23000	30 - 120	50	10 - 200	50
Anthracene*	120-12-7	mg/kg	0.067	0.029	54000	46 - 124	50	28 - 125	50
Atrazine	1912-24-9	mg/kg	0.333	0.168	240	41 - 120	50	10 - 200	50
Benzaldehyde	100-52-7	mg/kg	0.67	0.254	17000	10 - 150	50	10 - 200	50
Benzo(a)anthracene	56-55-3	mg/kg	0.067	0.03	110	45 - 120	50	23 - 120	50
Benzo(a)pyrene	50-32-8	mg/kg	0.067	0.027	11	45 - 120	50	15 - 128	50
Benzo(b)fluoranthene	205-99-2	mg/kg	0.067	0.028	110	43 - 120	50	12 - 133	50
Benzo(g,h,i)perylene	191-24-2	mg/kg	0.067	0.033	-	38 - 120	50	22 - 120	50
Benzo(k)fluoranthene	207-08-9	mg/kg	0.067	0.027	1100	42 - 120	50	28 - 120	50
Bis(2-chloroethoxy)methane	111-91-1	mg/kg	0.333	0.2	570	32 - 120	50	24 - 120	50
Bis(2-chloroethyl)ether	111-44-4	mg/kg	0.333	0.213	23	31 - 120	50	22 - 120	50
Bis(2-ethylhexyl)phthalate	117-81-7	mg/kg	0.333	0.207	3800	43 - 120	50	26 - 120	50
Butylbenzylphthalate	85-68-7	mg/kg	0.333	0.215	29000	43 - 133	50	24 - 133	50
Caprolactam	105-60-2	mg/kg	0.333	0.155	94000	18 - 138	50	10 - 199	50
Carbazole	86-74-8	mg/kg	0.333	0.207	-	44 - 120	50	25 - 123	50
Chrysene	218-01-9	mg/kg	0.067	0.037	11000	43 - 120	50	20 - 120	50
Dibenzo(a,h)anthracene	53-70-3	mg/kg	0.067	0.032	11	32 - 128	50	12 - 128	50
Dibenzofuran	132-64-9	mg/kg	0.333	0.21	220	41 - 120	50	21 - 120	50
Diethylphthalate	84-66-2	mg/kg	0.333	0.212	150000	41 - 122	50	29 - 122	50
Dimethylphthalate	131-11-3	mg/kg	0.333	0.207	-	55 - 120	50	30 - 120	50
Di-n-butylphthalate	84-74-2	mg/kg	0.333	0.211	19000	46 - 127	50	29 - 126	50
Di-n-octylphthalate	117-84-0	mg/kg	0.333	0.178	1900	40 - 130	50	27 - 130	50
Fluoranthene*	206-44-0	mg/kg	0.067	0.034	7200	46 - 120	50	10 - 143	50
Fluorene*	86-73-7	mg/kg	0.067	0.029	7200	42 - 120	50	20 - 120	50
Hexachlorobenzene	118-74-1	mg/kg	0.333	0.25	21	44 - 120	50	25 - 120	50
Hexachlorobutadiene	87-68-3	mg/kg	0.333	0.167	120	31 - 120	50	10 - 120	50
Hexachlorocyclopentadiene	77-47-4	mg/kg	0.333	0.15	5.3	24 - 120	50	10 - 120	50
Hexachloroethane	67-72-1	mg/kg	0.333	0.181	130	33 - 120	50	10 - 120	50
Indeno(1,2,3-cd)pyrene	193-39-5	mg/kg	0.067	0.029	110	41 - 121	50	22 - 121	50
Isophorone	78-59-1	mg/kg	0.333	0.188	38000	33 - 120	50	24 - 120	50
Naphthalene	91-20-3	mg/kg	0.067	0.029	380	32 - 120	50	10 - 120	50
Nitrobenzene	98-95-3	mg/kg	0.333	0.201	380	26 - 120	50	19 - 120	50
N-Nitroso-di-n-propylamine	621-64-7	mg/kg	0.333	0.194	7.8	35 - 120	50	24 - 120	50
N-Nitrosodiphenylamine	86-30-6	mg/kg	0.333	0.053	11000	52 - 120	50	26 - 150	50
Pentachlorophenol	87-86-5	mg/kg	0.67	0.266	100	44 - 134	50	19 - 145	50
Phenanthrene	85-01-8	mg/kg	0.067	0.034	-	45 - 120	50	21 - 122	50
Phenol	108-95-2	mg/kg	0.333	0.203	57000	30 - 120	50	15 - 120	50
Pyrene	129-00-0	mg/kg	0.067	0.034	5400	43 - 120	50	20 - 123	50

Notes:

a - EPA 2017 Removal Management Levels (July 2017);

CAS - Chemical Abstracts Service Registry
LCS - Laboratory Control Sample
MDL - Method Detection Limit
mg/kg - milligrams per kilogram
MS/MSD - Matrix Spike/Matrix Spike Duplicate
PALs - Project Action Levels
THQ - Target Hazard Quotient